CHAPTER V

ALTERNATIVE APPROACHES TO MILITARY MEDICAL CARE

Neither the Tricare program nor the Medical Readiness Strategic Plan 2001 is likely to resolve the inherent tension between meeting the requirements of the wartime mission and providing peacetime health care. In the future, as a result of continued growth in the number of retirees and their families, coupled with reductions in the medical infrastructure resulting from tighter defense budgets, the Department of Defense will find it even harder to focus on the wartime mission.

To ease that tension, the Congress may wish to consider alternative approaches to providing peacetime care while meeting the requirements of wartime. This chapter outlines an approach that would restructure the military health care system around its wartime mission, based on reducing medical requirements for wartime from Cold War levels.

AN ALTERNATIVE APPROACH TO TRAINING FOR WARTIME

Under DoD's plans for its military medical system--that is, the Tricare program--most military medical providers will have a limited opportunity to prepare for the wartime mission. Peacetime patient loads in the future will probably bear little resemblance to battle casualties. Moreover, they would probably bear a weaker resemblance to other war-related diagnoses than they do today, since fewer retirees and their dependents may be able to receive care at military treatment facilities. More relevant experience might come from treating military personnel serving in peacetime operations--for example, recent deployments of personnel to Panama, Somalia, and Haiti. Nevertheless, because those operations have fortunately resulted in few casualties, they have offered limited training for military medical providers in the area of combat casualty care. Even so, such operations might provide medical personnel with more training in treating disease and nonbattle conditions than they would receive from normal peacetime caseloads.

Increasing the experience of military medical personnel in treating diseases and injuries that they need to be trained to deal with in wartime would involve treating different patient loads during peacetime than is currently the case. Relying more heavily on the civilian sector--and less on the workloads in the direct care system--might give military medical providers substantially greater exposure to diseases, nonbattle injuries, and wounded-in-action conditions than they receive today. This approach assumes that civilian providers may have greater exposure to both disease

and nonbattle injuries and wounded-in-action conditions than military providers based on the wider range of diagnoses that are seen in the civilian sector.

Greater Exposure to Wounded-in-Action Conditions

One approach to wartime training and exposure to WIA conditions would be to build on the experience at Brooke Army Medical Center and Wilford Hall. As part of the San Antonio civilian trauma system, those hospitals provide their personnel with ongoing trauma training and an opportunity to practice wartime surgical skills that would not necessarily be available from a population of peacetime military beneficiaries.

Shock Trauma Centers. The military medical departments could decide more generally to establish affiliations with civilian trauma centers throughout the country. Current residency programs in which military physicians work in civilian hospitals could provide the basis for more extensive links between the military and civilian systems.

To determine the match between injuries treated at a typical shock trauma center and those sustained in battle, the Congressional Budget Office analyzed cases treated at the R Adams Cowley Shock Trauma Center in Baltimore, Maryland, during fiscal year 1993. The Baltimore center is a Level 1 facility capable of providing emergency care around the clock; thus, it receives a large volume of trauma patients. It also enjoys a statewide reputation and receives patients from outside its immediate urban area.

In 98 percent of the cases treated at the Baltimore center, the primary diagnoses matched those found on the military's list of battle injury or casualty-related diagnoses. That finding suggests that of the roughly 20,000 injuries treated at the Baltimore center, more than 19,500 would provide a military medical provider with training in a war-related condition. To treat an equivalent number of cases typical of battle injuries within the peacetime military direct care system, physicians would have to treat nearly 400,000 patients. Not only the nature of the medical training but also the intensity of exposure to conditions typical of wartime is obviously much greater in the Baltimore center than in most military facilities.

The R Adams Cowley Center, like other shock trauma centers, uses many techniques learned from military experiences in wartime, and its conditions of practice replicate many of the aspects of wartime medical practice: an unpredictable patient load, a high incidence of life-threatening conditions in which timely treatment is literally vital, and--as noted--diagnoses similar to those experienced in wartime.

Those similarities have not gone unnoticed: the Baltimore center currently serves as a clinical training site for military personnel in residency training programs (see Box 4).

Military Training at Shock Trauma Centers. CBO's analysis suggests that, for many military medical personnel, Level 1 shock trauma facilities are likely to provide the

BOX 4.
CIVILIAN SHOCK TRAUMA CARE AND ITS MILITARY ROOTS:
THE R ADAMS COWLEY SHOCK TRAUMA CENTER

Baltimore is home to the R Adams Cowley Shock Trauma Center, a state-of-the-art facility which opened in February 1989. The Shock Trauma Center serves as the regional trauma center for the most populated counties of Maryland and is the clinical hub of the state's system of trauma and emergency medical care. During fiscal year 1994, more than 5,200 patients were admitted to the Shock Trauma Center. Over two-thirds of them were transported directly from the scene of injury to the center. Approximately half of all patients were treated for injuries sustained in vehicular crashes and about 30 percent were victims of interpersonal violence, the majority of whom were gunshot victims.

The roots of the Shock Trauma Center lie in the military. In 1961, the U.S. Army provided a grant to begin the first shock trauma unit, a two-bed clinical research unit at the University of Maryland Hospital. Dr. R Adams Cowley, the unit's founder and director, drew on military medical experience in post-World War II Europe to further research the causes of shock and trauma. As the unit expanded and became part of Maryland's statewide trauma and emergency care system, it joined forces with the Maryland State Police Med-Evac Program. The Med-Evac Program built on lessons learned in the Korea and Vietnam conflicts to transport effectively the critically injured and ill.

Over the last several decades, the Shock Trauma Center has also served as a clinical training site for numerous U.S. military personnel. Rotational programs give training in trauma-style medicine to military physicians, physician assistants, and paramedics. Since 1989, clinicians from the U.S. Army's Special Operations Command, based at Fort Bragg, North Carolina, have performed two-month clinical tutorials on the center's trauma teams. Clinicians from Bethesda Naval Hospital, Walter Reed Army Medical Center, and the Uniformed Services University of the Health Sciences also perform trauma team rotations at the center. The R Adams Cowley Shock Trauma Center, whose foundation lies with the military, continues to support both in concept and in practice the training of U.S. military personnel at trauma centers.

best wartime training in trauma care and casualty-related diagnoses.[1] The Army is currently considering one way to establish affiliations with such facilities. The Army's proposal calls for a voluntary program in which a range of medical personnel--rapid deployment physicians, general or specialized surgeons from all services (including the reserves), senior medics, and nurses--would train in trauma centers, together with trauma center staff, to maintain their clinical competence in trauma surgery. Assignment to a trauma center could be for as little as one month every few years, several weeks a year, or several shifts a month.

Some 60 of the largest cities in the United States have a total of about 140 facilities with a major Level 1 shock trauma center. Each year, those facilities could provide training in combat-like skills for more than 1,500 medical personnel--such as nurses or physicians--assuming that about 12 military medical personnel are rotated annually at each facility. Over a three-year period, more than 4,500 medical providers--and perhaps even all of the surgeons the services will need for wartime medical readiness--might have the opportunity for wartime training. Equally important, refresher training could be carried out on a rotating basis. The details of any such plan, such as the length of individual rotations, would obviously depend on both the needs of the services to train their personnel and the needs of the civilian shock trauma centers.

Greater Exposure to DNBI Conditions

Military medical personnel also need exposure to disease and nonbattle injury conditions. Military medical providers already treat far more DNBI than WIA conditions in military medical facilities. Nonetheless, DoD could consider ways to improve on that record. Today's training experience is derived mainly from treating active-duty members and their families, who receive the majority of the care provided in military medical facilities. Retirees and their families and survivors make up about 35 percent of the total number of admissions in military medical facilities. Those over 65 years of age account for about 15 percent of total admissions.

Increase Training in Military Facilities. DoD believes that the solution for giving military medical personnel exposure to a broader range of diagnoses is to provide care to a greater number of retirees over the age of 65. DoD argues that "this older

1. Differences between civilian and wartime trauma care, however, do exist. Therefore, training military medical personnel in civilian shock trauma units would probably have to be augmented by other steps, such as courses that are specifically designed to educate personnel on how techniques in wartime differ from those in peacetime. See Arthur M. Smith and Steven J. Hazen, "What Makes War Surgery Different?" *Military Medicine*, vol. 56 (January 1991).

group of patients presents the wealth of clinical workload needed by our military medical personnel to maintain their skills for readiness missions."[2] The implication of this statement is that the complexity of cases--and range of diagnoses--generated by older people would relate more to wartime than providing care to a generally younger, healthier group of active-duty personnel and their dependents.

An approach of this kind, however, has disadvantages and limitations. Caring for a greater number of retirees over the age of 65 would trigger substantial increases in medical spending by the military, as the retirees received more of their care in military medical facilities and dependents of active-duty personnel sought care in the civilian sector under one of the three options under Tricare. Those increases in spending would add to the cost of Tricare.

Aside from the issue of cost, one problem with this approach is that by 1999 close to 50 percent of beneficiaries over the age of 65 will live outside military hospital service areas. As a result, DoD may find it difficult to increase its admission rates among retirees over the age of 65. Much depends on how willing retirees would be to travel longer distances to military medical facilities, even if the economic incentives to do so are strong.

Finally, any such effort to admit more beneficiaries over age 65 would require a major change in the system of priorities for care at military medical facilities. Any explicit policy of that nature would necessitate a change in the statute governing access by beneficiaries to care at military medical facilities and predictably would have adverse morale and financial consequences for active-duty families.

Military Training at Civilian Hospitals. If experience in treating patients over the age of 65 is indeed important in providing training for military medical providers, civilian hospitals could easily offer that experience. According to the 1994 Hospital Panel Survey of the American Hospital Association, people over 65 represented almost 40 percent of the admissions provided by community hospitals, compared with about 15 percent in military hospitals.[3]

Efforts to diversify the range of diagnoses that military medical providers are exposed to during peacetime might be better accomplished if DoD was to consider exactly what type of exposure its personnel needed for wartime and then how to offer that experience to them. Although it may be true that older beneficiaries give military medical providers the opportunity to treat certain illnesses and injuries that

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2. Statement of Stephen C. Joseph, Assistant Secretary of Defense for Health Affairs, before the Subcommittee on Military Personnel, House Committee on National Security, March 28, 1995.

3. American Hospital Association, *Hospital Panel Survey* (Washington, D.C.: AHA, December 1994).

are not common among younger beneficiaries, neither population group may offer DoD the exposure that it needs to many infectious diseases and illnesses that could found by treating a broader cross-section of the civilian population.

Effects on Peacetime Medical Care

Assigning a significant number of medical personnel to shock trauma centers and civilian hospitals would have undeniable consequences for the military's ability to provide medical care in peacetime. Military medical facilities would be more limited in the amount of care that they could provide, thus forcing beneficiaries to rely more heavily on the Civilian Health and Medical Program of the Uniformed Services or other sources of care. To avoid having to push beneficiaries into CHAMPUS, the Army has proposed using reservists to cover the loss of active-duty personnel at the military facilities, while active-duty personnel are training in civilian shock trauma units.[4]

Carrying out such proposals would mean disrupting current doctor and patient relationships.[5] Beyond that effect on the delivery of health care, such an approach would be costly. Additional rotations of personnel through shock trauma centers--or to civilian hospitals--would entail travel, per diem, and housing expenses, some or all of which might be defrayed by the hospitals benefiting from the services of military medical personnel. If the productivity lost in military facilities was not restored, CHAMPUS costs would rise as beneficiaries sought care in the civilian sector. Those increases in cost would occur at a time of tightening defense budgets.

REDEFINING THE RESPONSIBILITIES OF DoD

More generally, the difficulties posed for DoD by any training program that takes personnel out of its medical facilities--by assigning them to civilian hospitals or shock trauma units--raises the basic challenge of how to balance the wartime mission with peacetime care. In the past, the department has not been able to do that well. Even its own Medical Readiness Strategic Plan underscores DoD's tendency to provide peacetime care at the expense of wartime preparedness.

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4. A trauma training proposal that was developed by staff at Eisenhower Army Medical Center at Fort Gordon, Georgia, cites the possibility of using reservists to backfill military treatment facilities when active-duty physicians train in civilian shock trauma units.

5. Any disruption that might occur in the doctor and patient relationship may not bother active-duty personnel and their dependents very much, however, since they tend to relocate quite frequently and therefore would not have longstanding relationships with their physicians. In addition, of course, military medical personnel are subject to similar reassignments.

The option of assigning military medical personnel to civilian settings for training is based on the assumption that wartime medical readiness should be the primary objective of DoD's medical planning. To avoid compromising the wartime mission, DoD needs the flexibility and resources to train medical personnel for wartime needs, even at the possible expense of forgoing the direct delivery of some care to its beneficiaries in peacetime. Training in shock trauma programs or field medical training programs could improve wartime medical readiness. Civilian hospitals could also add to the exposure of military medical providers to DNBI conditions. Achieving those goals, however, might require redefining DoD's peacetime mission and providing health care for many military beneficiaries in other ways.

Reducing the Size of the Direct Care System to Wartime Requirements

Reducing medical requirements from Cold War levels creates an opportunity for DoD to reconsider how it handles its wartime medical mission and provides health care during peacetime. In accord with the findings of DoD's section 733 study and supporting analysis by RAND, the department could close the majority of its hospitals and medical centers and still provide through its own facilities roughly double the share of total wartime needs that it planned to meet during the Cold War.[6] As DoD has traditionally planned, the Department of Veterans Affairs (VA) and civilian hospitals under agreement with the National Disaster Medical System (NDMS) could provide additional wartime beds.

Several factors would influence any specific plan that DoD or the Congress might develop to downsize the military medical system. For example, selecting which facilities remained open might depend on their size, location, proximity to major airlift bases, and perhaps even their service affiliation. Another consideration might be to distribute the military hospitals across the United States in such a way that recovering casualties could be as close to family members as possible. For DoD's recent 733 study, RAND analyzed the effect of such factors on the possible location of military facilities in a downsized health care system, but DoD has no plans to implement RAND's analysis.[7]

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6. The findings of the Section 733 Study of the Military Medical Care System are still under review by DoD and the services. Therefore, requirements for wartime could change.

7. In support of the 733 study, RAND provided DoD with an analysis of the number and location of facilities that would be needed to meet the wartime requirements. See Susan D. Hosek and others, *The Demand for Military Health Care: Supporting Research for a Comprehensive Study of the Military Health-Care System* (Santa Monica, Calif.: RAND, 1995), p. 38.

Effects on Capacity. If the only requirement of the military medical system was its wartime mission, then according to RAND's analysis DoD could downsize the system to only 11 of today's hospitals with about 5,500 wartime beds in the United States. In doing so, DoD would be able to meet about 60 percent of the total wartime requirement for 9,000 beds through its own system, a significantly higher percentage than it ever met during the Cold War.

Moreover, if it carried out such an aggressive downsizing plan, DoD could then decide whether to convert to clinics the military medical centers and hospitals slated for closure. One factor in the decision would be the amount of care needed by active-duty personnel in each geographic area. If the active-duty presence was large enough, the department might find it less costly to keep a facility open than to obtain care through arrangements with civilian providers.

Effects on Available Care for Uniformed Personnel. Given the current geographical distribution of active-duty personnel, care for almost one-third of them could be provided at the 11 military hospitals remaining open to meet wartime medical requirements. To support the estimated demand for inpatient care for the active-duty population living near those 11 facilities during peacetime, DoD would need to operate only about 1,000 beds out of the 5,500 total beds retained for wartime (see Box 5). However, although DoD would only need to operate about 1,000 beds during peacetime to meet the demand for medical care by active-duty personnel, it would still retain an additional 4,500 beds during peacetime to meet the requirements for wartime.

Given that additional capacity, DoD might decide to operate more than 1,000 beds by delivering care to others, such as other military beneficiaries or civilians. Although that alternative has not been explored in this paper, clearly one way for DoD to secure a larger patient base might be to compete with civilian hospitals and providers for both military beneficiaries and civilians.

The remaining two-thirds of the active-duty population would receive its inpatient care in civilian hospitals. Based on today's per capita costs, the cost of care for active-duty personnel would probably be less than $3 billion a year. Other military beneficiaries--active-duty dependents and retirees and their families--would receive all of their care from civilian providers, perhaps under an approach such as the Federal Employees Health Benefits (FEHB) program, discussed later in this chapter.

Effects on DoD's Budget. Downsizing the direct care system to such an extent would offer substantial savings. Under one definition of wartime readiness, the Congressional Budget Office estimates that about $9 billion could be saved each year

to pay for medical care for DoD beneficiaries from alternative sources such as the FEHB program (see Appendix B on the method CBO used to estimate savings from downsizing the military health care system in the United States). However, the costs of closing military medical facilities, which CBO has not calculated, would be substantial, and based on experience with hospital closings in the base realignment and closure process, it would probably take from 5 to 10 years for DoD's annual savings to reach $9 billion. That estimate of savings does not take into account the cost of providing an alternative source of health care coverage for non-active-duty military beneficiaries.

Improving Affiliations with the Civilian Sector

Retaining only 11 hospitals would leave DoD short of its wartime requirements by some 3,500 beds. Traditionally, DoD has relied on its own system, the VA, and the civilian sector to meet its wartime requirements. Casualties returned to the United States from abroad would be sent to a military medical facility, where as many as

BOX 5.
MEETING THE DEMAND FOR CARE BY ACTIVE-DUTY PERSONNEL WITH A SYSTEM SIZED TO WARTIME REQUIREMENTS

Under an illustrative plan to downsize the military health care system in the United States, the military would remain responsible for the care of its active-duty personnel. Based on the geographical distribution of active-duty personnel, however, the demand for care during peacetime could not be met entirely by the military.

The Congressional Budget Office estimates that by 1999 almost one-third of active-duty personnel would live in areas near one of the 11 facilities remaining open in the direct care system sized for wartime. To meet the demand for inpatient care for that population, the Department of Defense would need to operate only about 1,000 beds of the total 5,500 wartime bed capacity left in the system. That estimate is based on the assumption that active-duty personnel would experience the same rates of health care use that they do today. (Of course, DoD could choose to operate more than 1,000 beds by providing medical services to private paying patients.) Civilian hospitals would probably meet the majority of demand for inpatient care by active-duty personnel living in areas too far away from the military facilities remaining open.

Outpatient care from a military facility would probably be more accessible for all active-duty personnel if DoD pursued such options as converting to clinics those medical facilities slated for closure and continuing to operate those clinics that are free-standing today. DoD would probably have to rely on the civilian sector to meet only very little of the demand for outpatient care by active-duty personnel, although it could decide to do so based on other considerations beyond capacity.

possible would be returned to duty within a certain period of time. The VA would provide care for those requiring it for longer periods of time. The VA's most recent estimate is that it could offer DoD roughly 13,000 beds for that purpose.

During the Cold War, civilian hospitals under agreement with the NDMS made up the difference in requirements. The most recent figures from DoD suggest that the civilian hospitals have registered over 100,000 beds with the NDMS for contingency use. Although DoD would use those beds if it had to, it is somewhat cautious about the availability of those civilian beds. Unlike the VA, which is required by law to support DoD, civilian hospitals merely volunteer their beds for contingency use. Moreover, the agreements that the civilian hospitals have signed are with the NDMS, not with DoD, and DoD has no assurance that the types of beds the civilian hospitals actually have available would match the military's needs.

Yet placing primary emphasis on performing the wartime mission would require strengthening affiliations with civilian hospitals--to provide better wartime training, employ military medical personnel who are not training in shock trauma units, and meet some of the requirements for caring for active-duty personnel. Such working relationships could allay concerns about providing care for uniformed personnel outside the military's direct care system, since active-duty personnel would be responsible for their care. In addition, military medical personnel assigned to civilian hospitals could be exposed to a wider range of patient conditions that would improve their training in DNBI diagnoses (assuming that they could treat civilians).

Several key issues might affect any decision to establish stronger affiliations with civilian hospitals for the purpose of providing military medical personnel with greater exposure to DNBI conditions. One of the major concerns that the services would have is whether or not they could establish a sufficient number of affiliations with civilian hospitals to keep their medical personnel employed during peacetime. In some areas of the country, many civilian hospitals may simply not be interested in establishing an affiliation agreement with the military. In others, local civilian providers might present the strongest opposition to staffing civilian hospitals with military medical personnel.

Another major issue that the military faces is whether or not civilian hospitals would allow military medics and other enlisted medical personnel the same types of training that they receive in military facilities. Liability issues, a major concern to civilian hospitals, would influence many of these decisions. Nonetheless, existing affiliations between the military and the civilian sector hold out the promise that DoD might be able to strengthen its relationship with civilian hospitals.

The Partnership Between the Navy and Newport Hospital

One such example is the partnership that the Navy and Newport Hospital in Newport, Rhode Island, formed in 1991 to provide health care to eligible military beneficiaries. Under that approach, military physicians practicing at Newport Hospital provide inpatient care and selected outpatient procedures, including ambulatory surgery, to military beneficiaries, including active-duty personnel. Inpatient care that military physicians cannot give is provided instead by civilian physicians who are reimbursed under CHAMPUS, naval hospital operating funds, or some other payer, such as Medicare. Most of the demand by military beneficiaries for primary outpatient care and most specialty care is met by the naval ambulatory health center, which is currently located in the remains of the old Newport Naval Hospital buildings. (A new comprehensive health care clinic is under construction and will house most services by 1997.) Military physicians spend the majority of their time at the ambulatory health center and travel the short distance to Newport Hospital when serving inpatients.

The partnership arrangement between the Navy and Newport Hospital is a strong one in which the parties have worked together to resolve a number of important issues. For example, would Newport Hospital or the Navy have liability for any malpractice suit by military physicians providing care to military beneficiaries at Newport Hospital? Would military physicians have to be licensed to practice in the state of Rhode Island?

The Navy and Newport Hospital agreed that when military providers are acting in the performance of their duties while treating military beneficiaries, the liability associated with providing that care rests with the U.S. government, even when that care is being provided in a private hospital. Similarly, the parties--and the State of Rhode Island--agreed that Rhode Island licensure would not be required when military physicians treat only military beneficiaries. Other issues, such as who has authority over military physicians when they provide care at Newport Hospital, were also resolved by agreement between the Navy and the hospital. Naval physicians fall under the authority of their commanding officer but also agree to abide by Newport Hospital by-laws.

Several factors influenced the formation of that partnership. The old Newport Naval Hospital, which reached a peak load of nearly 1,500 patients during World War II, was much too large for the eligible patient base of military beneficiaries. Moreover, its 1913 structure also meant that it could not be converted into a smaller and more efficient hospital, and the existing structure had problems meeting many modern health and safety standards. The daily patient count, which fluctuated greatly

during the mid-1980s but averaged only 50, also made it difficult for the Navy to staff its units efficiently.

As the number of patients declined, overhead costs skyrocketed. To spread those costs, the Navy attempted through its Family Practice Demonstration Program in 1989 to recapture the care that civilian hospitals were providing. The Navy also considered building a new $50 million facility and acquiring major medical equipment in order to meet inpatient needs. Meanwhile, Newport Hospital--the only civilian hospital in Newport--had an average daily patient load of 136 and was experiencing excess capacity and thus had the ability to provide inpatient care for the military's patient base. The Navy found it more cost-effective to form a partnership with Newport Hospital than to construct a new inpatient facility.

The Navy clearly enjoys a number of benefits from the partnership. Not only are military physicians able to maintain their clinical skills by working at Newport Hospital, but the arrangement has also lowered the government's cost of caring for military beneficiaries. For services that Newport Hospital provides to supplement those of the Navy's own physicians, the hospital provides the government up to a 20 percent discount off the CHAMPUS-allowable rate when reimbursement is under CHAMPUS or naval hospital operating funds. The arrangement also reduces DoD's cost of support staff, whose services are now purchased from Newport Hospital rather than from permanent DoD employees. The resulting flexibility in civilian staffing patterns lowers costs to the military. Better utilization management employing civilian admissions practices has further lowered costs. Although the partnership has resulted in reduced costs, it apparently has not reduced quality. Both medical staff and military beneficiaries are extremely satisfied with the program.

The Navy's partnership with Newport Hospital has also yielded dividends in wartime readiness. In 1991, when military physicians were deployed to the Persian Gulf War from Newport, civilian physicians provided the Navy with backup support by continuing to provide care to military beneficiaries at Newport Hospital. The hospital's ability to provide that support, of course, stemmed in part from its relatively small military patient load compared with the average number of civilian patients. Other factors, such as the types of care provided by military and civilian physicians, might also affect providing backup support in particular instances.

In discussing why the partnership has worked so well, both the Navy and Newport Hospital cite its informal nature. The Navy, in particular, stresses the importance of making decisions based on the local concerns and conditions of the health care market. To make other such partnerships between the military and private providers work in the future, that flexibility clearly would have to be safeguarded.

Allowing military medical personnel to staff civilian hospitals during peacetime raises a number of other important issues for the military that the case study of the Navy's partnership with Newport does not address. One key question that DoD would need to answer is, Who would military medical personnel report to while working in a civilian setting? Another issue is whether military medical personnel would be able to treat civilian patients to broaden their clinical training experience. And if the civilian hospital increased its reliance on military physicians to treat a significant share of its patient base, how would the hospital handle the loss of medical personnel during wartime? Newport Hospital could handle that loss, but that was because the hospital's reliance on the military was minimal. Another major issue that the military would have to address is whether it would be able to maintain the same unit cohesion necessary for wartime by employing military medical personnel through civilian hospitals.

But if the partnership between Newport Hospital and the Navy is able to teach policymakers one lesson, it might be that the conditions of the local health care market will determine the success or failure of the relationship. Therefore, given the importance of the local market, any attempt to establish the same type of partnership in every health care market in the country--or to address all issues that are central to this topic in a uniform manner--could lead to the failure of the concept.

OTHER ISSUES IN WARTIME READINESS

Any plan to reduce the size of the military medical establishment would have many other effects on the military's ability to perform its wartime missions. The department feels that two areas are of particular importance: the military's graduate medical education programs and the role of the reserves.

Graduate Medical Education Programs

Downsizing the military health care system in the United States would have a significant impact on the military's GME programs. Graduate medical education is the specialized education that physicians receive after their four years of basic medical education. All physicians must complete a graduate medical education program to gain certification in a medical or surgical specialty. Specialty training is an important step for physicians in terms of both their commitment of time and their

choice of a career path. Most programs take from two to six years, sometimes including both a one-year internship and residency training.[8]

The military operates residency (and fellowship) programs in a wide range of medical specialties. They have curricula equivalent to those of civilian GME programs and are accredited by the same medical organizations. Most military GME programs are located at major medical centers as well as at military hospitals.

During the time they spend in GME programs, physicians are practicing medicine and providing medical care. The existence of military GME programs thus provides DoD with the services of physicians during their period of training as specialists. About 25 percent of military physicians are in GME training at any given time. As a result, they provide a substantial portion (but less than one-fourth) of DoD's physician services.[9]

That contribution to treating patients in peacetime is one reason why the Surgeons General of the military services place a high value on military GME programs. Another reason is that in wartime GME students also serve as an emergency source of military-experienced physicians. In principle, at least, the existence of military GME programs helps the military to ensure the availability of the types and numbers of physicians needed for the wartime mission. The wide range of military GME programs, however, may dilute that emphasis on training in the specialties needed for wartime.

The Surgeons General also contend that by offering the possibility of teaching during physicians' military careers, military GME programs aid in recruiting and retention. The appeal of teaching may help in retaining physicians who otherwise might be induced to leave military service for civilian practice. In addition, according to the Surgeons General, physicians trained in military GME programs make up a larger share of military medical leaders.

Perhaps the strongest argument in favor of military GME programs is that they offer better training in military medicine than do civilian residency programs. Military programs typically require courses specific to military medicine in addition to the standard curriculum that they share with civilian GME programs. Some benefit may also accrue from continuing to acculturate military physicians by training them in institutions that emphasize service to military populations, membership in the military community, and responsibility to military discipline.

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8. The internship may or not be considered to be the first year of graduate medical education. For example, according to DoD, the internship counts as the first year of residency for a pediatrician but not for a dermatologist.

9. Physicians in medical residency training are considered to be less productive than full-time-equivalent physicians.

Unless those benefits could be obtained in other ways--for example, through supplementary course work in military medicine--they might be lost under a major downsizing of the military health care system. Reducing the total number of active-duty physicians to wartime requirements would also reduce the need for military GME programs. Moreover, a system that provided care only for active-duty personnel would probably not have an adequate patient base for specialty training. DoD might be able to retain accreditation for some of its programs by expanding its patient base beyond active-duty personnel. For example, military and even civilian beneficiaries--depending on their insurance coverage--could be offered access to care at military medical facilities.

Nonetheless, downsizing would probably force DoD to train more of its physicians through civilian GME programs. Despite the existence of military GME programs, it is not unusual for military physicians to train in civilian residency programs. For example, almost half of the Air Forces' physicians are graduates of civilian training.

One argument that has been offered against relying on civilian programs to train military specialists is that those who train in civilian residency programs tend to leave service sooner than those who train in military GME programs. That difference, however, appears to be at least partly the result of the way the military services manage the careers of their medical personnel. Each year the services defer some physicians, such as those with an obligation for military service incurred through DoD's Health Professionals Scholarship Program. Those new graduates of medical school typically enter civilian residency programs without military sponsorship and thus incur no additional obligation during their specialty training. Upon completing it, they may perform their military service as specialists and may then leave to enter civilian practice. By contrast, military residency training increases a physician's service obligation by about one year for each year of training, so graduates of those programs stay longer on average than those trained in civilian programs.

That policy appears to serve the needs of the military services, which often face both budgetary constraints and end-strength limits on the number of physicians they can employ. The observed shorter average length of service of graduates of civilian residencies thus may serve the interests of the services' medical programs as well as those of the physicians. In any event, ending deferrals, or at least requiring the same additional service obligation for civilian as for military GME training, would probably eliminate most of the observed difference in physician retention. Such a policy change would undeniably make military service less attractive to medical students and thus might limit the effectiveness of the scholarship program. But the

additional years of service per physician would tend to offset those losses, and in any event the overall downsizing would reduce the services' needs for medical personnel.

Even if physician retention does not suffer, eliminating most military GME programs would lead to changes in career progression for most military physicians. Fewer opportunities would be available to teach or to develop leadership skills by managing a military clinic, hospital, or medical center. Physicians probably would spend more of their careers in deployment assignments, and fewer would be assigned to hospitals in the Continental United States. Perhaps the most fundamental change would be in the purpose and orientation of the military health care system--from one structured chiefly to provide care in peacetime to a civilian population to one focused on training for wartime. Those changes would need to be dealt with in a way that maintains the skills of physicians, but they still could affect the attractiveness of a military medical career.

Downsizing could also possibly offer some benefits and opportunities for medical personnel that are not available in today's direct care system. For example, military physicians might have the chance to develop stronger ties with civilian institutions than they have today, given the chance to work in a civilian hospital. Closer integration with civilian practice patterns might help military physicians learn new techniques and work with equipment not readily available in military facilities. At the same time, closer affiliations with civilian hospitals could hurt retention. Finally, many physicians, particularly surgeons, could view rotating assignments to shock trauma units as more personally and professionally rewarding.

Continued Reliance on the Reserves

Any reduction in the size of the active-duty medical force to wartime requirements would entail a continued reliance on reserve medical personnel. The section 733 study, for example, suggested maintaining the ratio of active to reserve personnel that existed during the Cold War (see Table 7). Reliance on reservists, however, may create problems of deployability: for example, during the Persian Gulf War, DoD lacked a system for verifying the medical fitness of reserve medical personnel.

In its Medical Readiness Strategic Plan 2001, DoD outlines several objectives to ensure the readiness of the medical force in the future. Improving the readiness of reserve personnel as well as active-duty personnel is a focus of the plan. Among the goals that DoD has set forth are recruiting and retaining a sufficient number of qualified personnel, ensuring that all services use a consistent set of criteria for medical deployability, and ensuring that all medical personnel attend the required entry-level military training.